

### IN THE CLAIMS

1. (Previously Presented) An isolated nucleic acid that comprises SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18.
2. (Previously Presented) An isolated nucleic acid that comprises SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18, and that can selectively hybridize to DNA from a bacteria of the family *Enterobacteriaceae*.
3. (Original) An isolated nucleic acid that comprises SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10 and that can selectively hybridize to DNA from *Escherichia coli*.
4. (Original) The isolated nucleic acid of claim 3 wherein the nucleic acid selectively hybridizes to DNA from *Escherichia coli* in the presence of DNA from at least one other bacterial species of the family *Enterobacteriaceae*.
5. (Original) The isolated nucleic acid of claim 3 wherein the nucleic acid selectively hybridizes to DNA from *Escherichia coli* in the presence of DNA from *Klebsiella*, *Salmonella*, *Shigella* or *Yersinia*.
6. (Original) An isolated nucleic acid that comprises SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, or SEQ ID NO:14 and that can selectively hybridize to DNA from *Salmonella typhimurium*.

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7. (Original) The isolated nucleic acid of claim 6 wherein the nucleic acid selectively hybridizes to DNA from *Salmonella typhimurium* in the presence of DNA from at least one other bacterial species of the family *Enterobacteriaceae*.
  8. (Original) The isolated nucleic acid of claim 3 wherein the nucleic acid selectively hybridizes to DNA from *Salmonella typhimurium* in the presence of DNA from *Klebsiella* or *Escherichia*.
  9. (Original) An isolated nucleic acid that comprises SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18 and that can selectively hybridize to DNA from *Klebsiella oxytoca*.
  10. (Original) The isolated nucleic acid of claim 9 wherein the nucleic acid selectively hybridizes to DNA from *Klebsiella oxytoca* in the presence of DNA from at least one other bacterial species of the family *Enterobacteriaceae*.
  11. (Original) The isolated nucleic acid of claim 9 wherein the nucleic acid selectively hybridizes to DNA from *Klebsiella oxytoca* in the presence of DNA from *Salmonella* or *Escherichia*.
  12. (Previously Presented) A biosensor chip that comprises a nucleic acid comprising SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18.
  13. (Previously Presented) A method of detecting the presence of enteric bacteria in a test sample that comprises contacting the test sample with a probe under stringent hybridizations conditions, and detecting hybridization between the probe and a nucleic acid in the test sample, wherein the probe comprises SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ

ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18.

14. (Original) The method of claim 13 wherein the enteric bacteria are of the family *Enterobacteriaceae*.
15. (Original) The method of claim 13 that further comprises DNA amplification.
16. (Original) The method of claim 15 wherein the DNA amplification is by polymerase chain reaction.
- 17-20 (Canceled)
21. (Previously Presented) A method of detecting the presence of *Escherichia* in a test sample that comprises contacting the test sample with a probe under stringent hybridization conditions, and detecting hybridization between the probe and a nucleic acid in the test sample, wherein the probe comprises isolated nucleic acid that comprises SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10.
22. (Original) The method of claim 21 wherein the probe selectively hybridizes to DNA from *Escherichia coli* in the presence of DNA from *Klebsiella*, *Salmonella*, *Shigella* or *Yersinia*.
23. (Original) The method of claim 21 that further comprises DNA amplification.
24. (Original) The method of claim 23 wherein the DNA amplification is by polymerase chain reaction.
25. (Original) A method of detecting the presence of *Salmonella* in a test sample that comprises contacting the test sample with a probe under stringent hybridizations

conditions, and detecting hybridization between the probe and a nucleic acid in the test sample, wherein the probe comprises isolated nucleic acid that comprises SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, or SEQ ID NO:14.

26. (Original) The method of claim 25 wherein the probe selectively hybridizes to DNA from *Salmonella typhimurium*. in the presence of DNA from *Klebsiella* or *Escherichia*.
27. (Original) The method of claim 25 that further comprises DNA amplification.
28. (Original) The method of claim 27 wherein the DNA amplification is by polymerase chain reaction.
29. (Original) A method of detecting the presence of *Klebsiella* in a test sample that comprises contacting the test sample with a probe under stringent hybridizations conditions, and detecting hybridization between the probe and a nucleic acid in the test sample, wherein the probe comprises isolated nucleic acid that comprises SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18.
30. (Original) The method of claim 29 wherein the probe selectively hybridizes to DNA from *Klebsiella oxytoca* in the presence of DNA from *Salmonella* or *Escherichia*.
31. (Original) The method of claim 29 that further comprises DNA amplification.
32. (Original) The method of claim 31 wherein the DNA amplification is by polymerase chain reaction.
33. (Original) A method for detecting enteric bacteria in a test sample that comprises contacting a test sample with a biosensor chip that comprises a solid support and

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- an antibody that can bind to dGTPase from *Enterobacteriaceae*; and detecting whether dGTPase is bound to the biosensor chip; wherein the antibody is directed against a peptide having SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, or SEQ ID NO:36.
34. (Original) An isolated antibody that can selectively bind to dGTPase from *Enterobacteriaceae* wherein the antibody is directed against a polypeptide having SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, or SEQ ID NO:36.
35. (Original) A method for detecting *Enterobacteriaceae* in a test sample that comprises contacting the isolated antibody of claim 34 with the test sample for a time and under conditions sufficient for the antibody to bind to a dGTPase polypeptide so as to form a binary complex between at least a portion of the antibody and a portion of the dGTPase polypeptide and detecting the binary complex.
36. (Original) A method of isolating a dGTPase polypeptide from *Enterobacteriaceae* comprising contacting a sample that may contain a dGTPase from *Enterobacteriaceae* with the antibody of claim 34 that is attached to a solid support, washing the solid support and eluting a dGTPase polypeptide from *Enterobacteriaceae*.
37. (Original) A biosensor chip that comprises a solid support and an antibody that can selectively bind to dGTPase from *Enterobacteriaceae*.

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38. (Previously Presented) The biosensor chip of claim 37 wherein the antibody is directed against a polypeptide having SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, or SEQ ID NO:36.
39. (Original) A biosensor chip that comprises a solid support and a nucleic acid probe that can selectively hybridize to nucleic acid encoding a dGTPase from *Enterobacteriaceae*.
40. (Previously Presented) The biosensor chip of claim 39 wherein the probe is a nucleic acid comprising SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, or SEQ ID NO:18.
41. (Previously Presented) A method for detecting enteric bacteria in a test sample that comprises contacting a test sample with a biosensor chip that comprises a solid support and an antibody that can bind to dGTPase from *Enterobacteriaceae*; and detecting whether dGTPase is bound to the biosensor chip; wherein the antibody is directed against a peptide having SEQ ID NO:19.